How to use morphology to improve students' spelling

by Anna Geiger, M.Ed.

Read this blogpost on themeasuredmom.com:
https://www.themeasuredmom.com/how-to-use-morphology-to-improve-students-spelling/

I don't know about you, but the word *morphology* was completely new to me five years ago. And, frankly, it sounded boring and weird. I wasn't interested.

Fast forward a few years, and I've learned that morphology is absolutely key for making sense of English spelling. In fact, we can start teaching it to kindergartners! Morphology knowledge grows with our students, and even morphology experts will tell you they have more to learn.

› So…what is morphology?

Morphology is the study of **morphemes**, the smallest meaningful units of words. Lyn Stone calls them the smallest possible structural unit.

› Types of morphemes

As you can see in the chart below, morphemes fit into two broad categories: base elements and affixes.
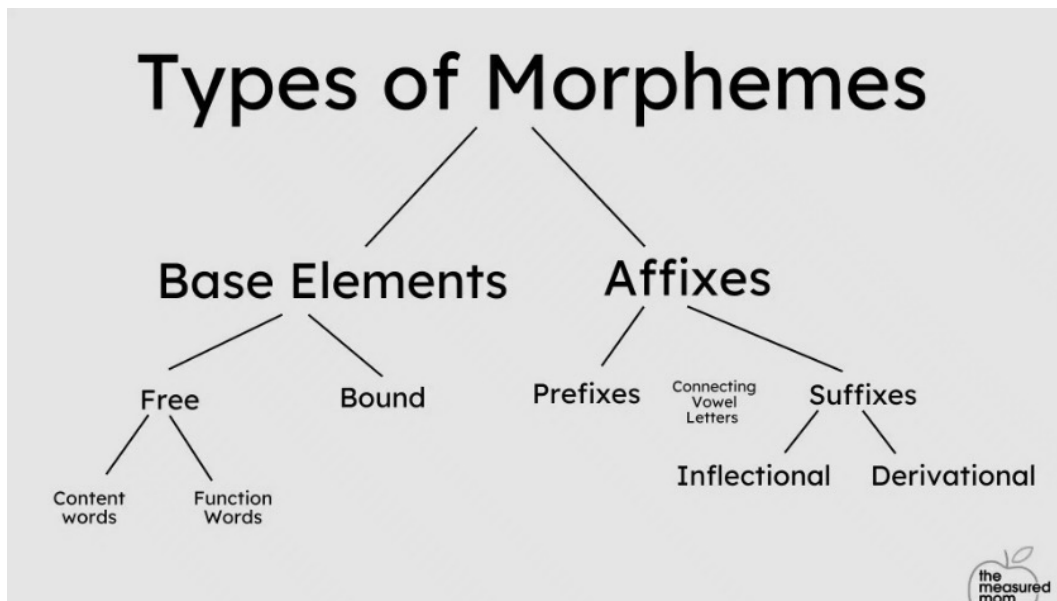
› Base elements

A base element is a **free base** when it can exist all on its own as a word. For example, the word *cake* is a base element and a word all on its own.

The **base element** is the unit that forms the foundation for the word's spelling and meaning.

› Free bases

The same thing goes for words like *horse, car,* and *milk.*

Free bases don't have to be a single syllable. The words *elephant, banana, rabbit,* and *tiger* are all free bases even though they are more than one syllable. (The fancy word for words that are more than one syllable but still a single morpheme is *polysyllabic monomorph.* Impress your friends! 🤣)

The above examples are content words, but free bases can also be function words, such as *in, to,* or *was.*

(Side note: In my book, Reach All Readers, I referred to free bases as *root words* and bound bases as *roots.* I've also seen people refer to free bases as *base words.* It can get very confusing! To avoid all that confusion, I've now adopted the generic term "base element" used by Sue Scibetta Hegland in her wonderful book, **_Beneath the Surface of Words_**. These base elements can be either free or bound.)

› Bound bases

A base element is a **bound base** when it must be connected to one or more affixes to make a word. For example, in the word *refer*, we have the prefix *re-* and the bound base *fe*r (which has the connotation of *carry*).

(Side note: I remember being taught that if what follows the "prefix" isn't a complete word all on its own (in other words, a free base), it's not actually a prefix. Wrong!! Were you taught this too?! Let me know in the comments!)

› Affixes

Affixes can be added to both free bases and bound bases.

› Prefixes

A **prefix** is *before* the base element. It usually alters the meaning of the base element. For example, the prefix *un-* changes the meaning of the word *happy* when it is added: *unhappy.*
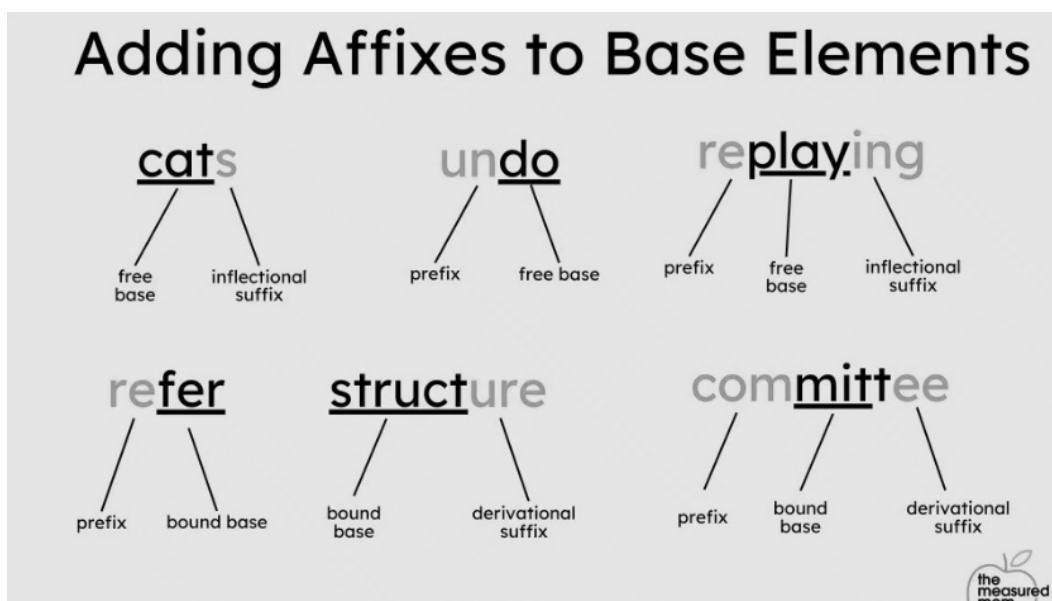
› Suffixes

Suffixes follow the base element. They can be **inflectional suffixes**, which do not change the word's part of speech. Inflectional suffixes include *-s, -es, -ing, -ed, -er,* and *-est.*

Derivational suffixes are the fancier ones. They change the meaning of a word and may also change its part of speech. For example, the suffix *-ful* changes the noun, *beauty*, into an adjective: *beautiful.*

Did you know that the derivational suffix *-tion* isn't a suffix at all? The suffix is actually *-ion*. The <t> is always part of the bound base, as in the word *construction* (con + struct + ion). Mind-blowing!

The following chart shows how base elements and affixes combine to form words.

Adding Affixes to Base Elements

cats
free base — inflectional suffix

undo
prefix — free base

replaying
prefix — free base — inflectional suffix

refer
prefix — bound base

structure
bound base — derivational suffix

committee
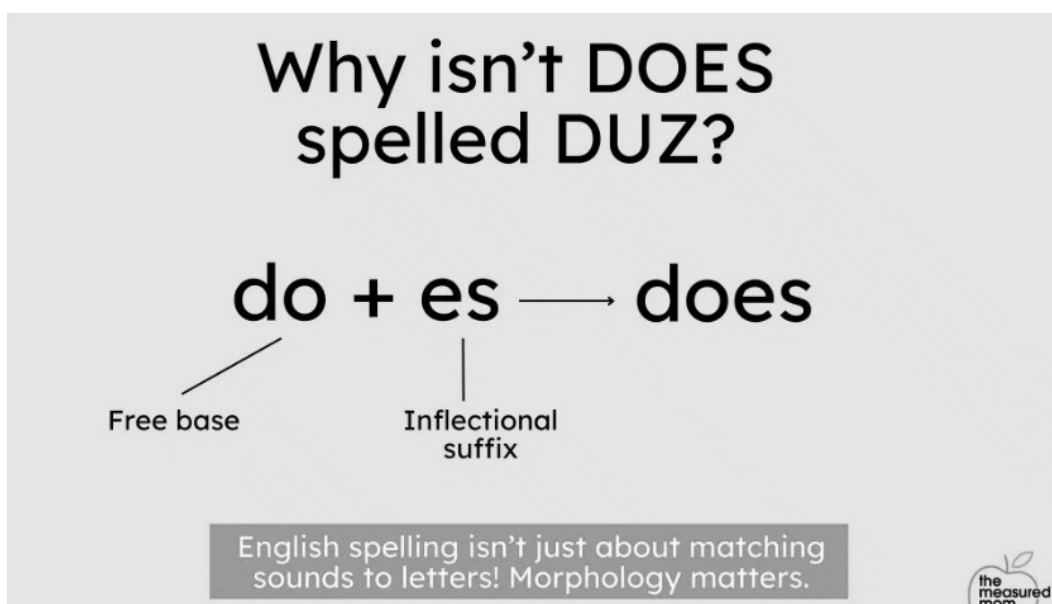prefix — bound base — derivational suffix

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› So what's the point?

The reason it's important to understand morphology and teach it to our students is because morphology, *not phonology*, has the greatest impact on English spelling.

Take the word *does*. Why isn't it spelled *duz?* Simple! English spelling is not simply speech written down. English spelling also communicates meaning.

Look at the morphemes.

Why isn't DOES spelled DUZ?

do + es — does

Free base — Inflectional suffix

English spelling isn't just about matching sounds to letters! Morphology matters.

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When you realize that pronunciation can change over time, but *the spelling of the morpheme is consistent*, English spelling makes so much more sense!

Consider the following words: natural, nation, and nativity. The letter <t> has three different pronunciations in those words: /ch/, /sh/, and /t/. And yet, each word includes the base element <nate>, which has the connotation of *born.* (Yes, the *e* is dropped in each word before adding the suffix. I'll get to that).

These spellings are not weird or irregular. They illustrate the important principle that pronunciation can differ, but the spelling of the morpheme remains consistent.

Are you starting to see how a knowledge of morphemes can help our students with their spelling?

› How to get started with morphology

I prefer to start morphology instruction by teaching students how to add <s> to make nouns plural. We can show students that the <s> signals the plural form, but that its pronunciation can change based on the word.

cat + s –> cats   dog + s –> dogs

Did you notice that <s> is pronounced /s/ in the first word, but /z/ in the second word?

When you teach the –*ed* ending, show your students that the <ed> spelling is consistent, but its pronunciation changes depending on the word.

What sound does <ed> represent in each of these words?   jumped   filled   landed

Once we teach our students that the <ed> ending is needed to show past tense, we can help them understand why *jumped* is not spelled *jumpt.*

Because … spelling represents more than sound! Say it with me now: *The spelling of the morpheme is consistent, even when pronunciation changes.*

› Next steps for morphology instruction

A logical next step in your morphology instruction is to help students understand spelling changes and why they might occur (or not occur) when adding a prefix or suffix.

mis + spell –> misspell
hop + ed –> hopped
hope + ed –> hoped
cry + ed –> cried

The following chart explains the key spelling rules for adding prefixes and vowel suffixes (suffixes that begin with a vowel).

Spelling Rules for Adding Prefixes & Vowel Suffixes*

Prefix Rule	Doubling Rule	Drop It Rule	Change It Rule
Never double a letter when adding a prefix. If the prefix's final consonant and the base element's first letter are the same, keep them both.	When a base element ends with a short vowel and a single consonant, double the final consonant and add the vowel suffix.	When a base element ends with a final silent e, drop the e before adding the vowel suffix.	When a base element ends with a consonant + y, change the y to i before adding the vowel suffix, but not if the suffix begins with i. Double i's are illegal in English words.
mis + spell ⟶ misspell	hop + ing ⟶ hopping	hope + ing ⟶ hoping	cry + ed ⟶ cried
un + nerve ⟶ unnerve	com + mit + ee ⟶ committee	vise + or ⟶ visor	fly + ing ⟶ flying

*A vowel suffix is a suffix that begins with a vowel, such as -ed, -ing, -er, -ion, etc.

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› How to continue with morphology instruction

Once your students understand prefixes, suffixes, and how to attach them to words, they are ready to use word matrices. (Another option is to have them discover the above rules *while using a word matrix*. You can learn more about that in Pete Bowers' excellent book, ***[Teaching How the Written Word Works](.)***.)

› Word matrices

A **word matrix** includes affixes and a base element arranged in columns. Students can use the word matrix to create word sums. A word sum shows how one or more affixes combine with the base element to form a word.

Here is a simple word matrix using the free base, *help.*

Using this word matrix, you can help students form word sums like these:

un + help + ful -> unhelpful
help + er + s -> helpers
help + less -> helpless

un	**help**	s ed ing	
		er	s
		full less	ly ness

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Here is a more challenging word matrix using a bound base:

```
con                      s
in          sist         ed
per                      ing
as       STAND, MAKE, OR
de          BE FIRM      ible
sub                      ant
tran                     ent

ir    re                 or    s
```

Using this word matrix, you can help students form word sums like these:

con + sist + ent -> consistent
ir + re + sist + ible -> irresistible
re + sist -> resist

(Did you notice? The sound of <s> in <sist> is /s/ in the first word and /z/ in the second two words. But ... even though pronunciation changed, *the spelling of the morpheme did not change.*)

I have a growing collection of free word matrices that you can use to get started. You can find them here: **https://www.themeasuredmom.com/free-word-matrix-activities/**

And that's just the beginning! There's so much more to morphology, but I hope that this post has helped you see that morphology can explain many English spellings. When you teach morphology to your students, spelling becomes less of a mystery. When they understand *why* words are spelled a particular way, their spelling will improve. Hurray!

› Recommended resources

• ***Teaching How the Written Word Works***, by Pete Bowers

• ***Beneath the Surface of Words***, by Sue Scibbeta Hegland

More resources for you

• *Get the book, **Reach All Readers***
• *Sign up for the **Reach All Readers online course***
• *Join our **membership for K-3rd grade teachers***